



OIPE

ENTERED

RAW SEQUENCE LISTING

DATE: 03/27/2002

PATENT APPLICATION: US/09/808,212A

TIME: 14:54:05

Input Set : A:\414us.app.txt

Output Set: N:\CRF3\03272002\I808212A.raw

```

4 <110> APPLICANT: Gore, Michael Graham
5      Beckingham, Jennifer Ann
6      Roberts, Sian Eleri
9 <120> TITLE OF INVENTION: IMMUNOGLOBULIN BINDING PROTEIN
12 <130> FILE REFERENCE: 100084.414US
14 <140> CURRENT APPLICATION NUMBER: 09/808,212A
15 <141> CURRENT FILING DATE: 2001-03-13
17 <160> NUMBER OF SEQ ID NOS: 32
19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 249
23 <212> TYPE: DNA
24 <213> ORGANISM: Peptostreptococcus sp.
26 <220> FEATURE:
27 <221> NAME/KEY: CDS
28 <222> LOCATION: (1)...(246)
30 <400> SEQUENCE: 1
31 atg aac att aaa ttt gct gga aaa gaa aca cca gaa aca cca gaa gaa      48
32 Met Asn Ile Lys Phe Ala Gly Lys Glu Thr Pro Glu Thr Pro Glu Glu
33 1          5          10          15
35 cca aaa gaa gaa gtt aca atc aaa gtt aac tta atc ttt gca gat gga      96
36 Pro Lys Glu Glu Val Thr Ile Lys Val Asn Leu Ile Phe Ala Asp Gly
37          20          25          30
39 aag ata caa aca gca gaa ttc aaa gga aca ttt gaa gaa gca aca gca      144
40 Lys Ile Gln Thr Ala Glu Phe Lys Gly Thr Phe Glu Glu Ala Thr Ala
41          35          40          45
43 gaa gct tac aga tat gca gac tta tta gca aaa gta aat ggc gaa tat      192
44 Glu Ala Tyr Arg Tyr Ala Asp Leu Leu Ala Lys Val Asn Gly Glu Tyr
45          50          55          60
47 aca gca gac tta gaa gat ggt gga aac cat atg aac att aaa ttt gct      240
48 Thr Ala Asp Leu Glu Asp Gly Gly Asn His Met Asn Ile Lys Phe Ala
49 65          70          75          80
51 gga aaa taa      249
52 Gly Lys
56 <210> SEQ ID NO: 2
57 <211> LENGTH: 82
58 <212> TYPE: PRT
59 <213> ORGANISM: Peptostreptococcus sp.
61 <400> SEQUENCE: 2
62 Met Asn Ile Lys Phe Ala Gly Lys Glu Thr Pro Glu Thr Pro Glu Glu
63 1          5          10          15
64 Pro Lys Glu Glu Val Thr Ile Lys Val Asn Leu Ile Phe Ala Asp Gly
65          20          25          30

```

RAW SEQUENCE LISTING

DATE: 03/27/2002

PATENT APPLICATION: US/09/808,212A

TIME: 14:54:05

Input Set : A:\414us.app.txt

Output Set: N:\CRF3\03272002\I808212A.raw

```

66 Lys Ile Gln Thr Ala Glu Phe Lys Gly Thr Phe Glu Glu Ala Thr Ala
67      35              40              45
68 Glu Ala Tyr Arg Tyr Ala Asp Leu Leu Ala Lys Val Asn Gly Glu Tyr
69      50              55              60
70 Thr Ala Asp Leu Glu Asp Gly Gly Asn His Met Asn Ile Lys Phe Ala
71 65              70              75              80
72 Gly Lys
76 <210> SEQ ID NO: 3
77 <211> LENGTH: 228
78 <212> TYPE: DNA
79 <213> ORGANISM: Peptostreptococcus sp.
81 <220> FEATURE:
82 <221> NAME/KEY: CDS
83 <222> LOCATION: (1)...(228)
85 <400> SEQUENCE: 3
86 aaa gaa gaa aca cca gaa aca cca gaa act gat tca gaa gaa gaa gta      48
87 Lys Glu Glu Thr Pro Glu Thr Pro Glu Thr Asp Ser Glu Glu Glu Val
88 1      5              10              15
90 aca atc aaa gct aac cta atc ttt gca aat gga agc aca caa act gca      96
91 Thr Ile Lys Ala Asn Leu Ile Phe Ala Asn Gly Ser Thr Gln Thr Ala
92      20              25              30
94 gaa ttc aaa gga aca ttt gaa aaa gca aca tca gaa gct tat gcg tat      144
95 Glu Phe Lys Gly Thr Phe Glu Lys Ala Thr Ser Glu Ala Tyr Ala Tyr
96      35              40              45
98 gca gat act ttg aag aaa gac aat gga gaa tat act gta gat gtt gca      192
99 Ala Asp Thr Leu Lys Lys Asp Asn Gly Glu Tyr Thr Val Asp Val Ala
100      50              55              60
102 gat aaa ggt tat act tta aat att aaa ttt gct gga      228
103 Asp Lys Gly Tyr Thr Leu Asn Ile Lys Phe Ala Gly
104 65              70              75
107 <210> SEQ ID NO: 4
108 <211> LENGTH: 76
109 <212> TYPE: PRT
110 <213> ORGANISM: Peptostreptococcus sp.
112 <400> SEQUENCE: 4
113 Lys Glu Glu Thr Pro Glu Thr Pro Glu Thr Asp Ser Glu Glu Glu Val
114 1      5              10              15
115 Thr Ile Lys Ala Asn Leu Ile Phe Ala Asn Gly Ser Thr Gln Thr Ala
116      20              25              30
117 Glu Phe Lys Gly Thr Phe Glu Lys Ala Thr Ser Glu Ala Tyr Ala Tyr
118      35              40              45
119 Ala Asp Thr Leu Lys Lys Asp Asn Gly Glu Tyr Thr Val Asp Val Ala
120      50              55              60
121 Asp Lys Gly Tyr Thr Leu Asn Ile Lys Phe Ala Gly
122 65              70              75
125 <210> SEQ ID NO: 5
126 <211> LENGTH: 216
127 <212> TYPE: DNA
128 <213> ORGANISM: Peptostreptococcus sp.

```

RAW SEQUENCE LISTING

DATE: 03/27/2002

PATENT APPLICATION: US/09/808,212A

TIME: 14:54:05

Input Set : A:\414us.app.txt

Output Set: N:\CRF3\03272002\I808212A.raw

130 <220> FEATURE:

131 <221> NAME/KEY: CDS

132 <222> LOCATION: (1)...(216)

134 <400> SEQUENCE: 5

135 aaa gaa aaa aca cca gaa gaa cca aaa gaa gaa gtt act att aaa gca 48

136 Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala

137 1 5 10 15

139 aac tta atc tat gca gat gga aaa aca caa aca gca gaa ttc aaa gga 96

140 Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly

141 20 25 30

143 aca ttt gaa gaa gca aca gca gaa gca tac aga tat gca gat gca tta 144

144 Thr Phe Glu Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Ala Leu

145 35 40 45

147 aag aag gac aat gga gaa tat aca gta gac gtt gca gat aaa ggt tat 192

148 Lys Lys Asp Asn Gly Glu Tyr Thr Val Asp Val Ala Asp Lys Gly Tyr

149 50 55 60

151 act tta aat att aaa ttt gct gga 216

152 Thr Leu Asn Ile Lys Phe Ala Gly

153 65 70

156 <210> SEQ ID NO: 6

157 <211> LENGTH: 72

158 <212> TYPE: PRT

159 <213> ORGANISM: Peptostreptococcus sp.

161 <400> SEQUENCE: 6

162 Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala

163 1 5 10 15

164 Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly

165 20 25 30

166 Thr Phe Glu Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Ala Leu

167 35 40 45

168 Lys Lys Asp Asn Gly Glu Tyr Thr Val Asp Val Ala Asp Lys Gly Tyr

169 50 55 60

170 Thr Leu Asn Ile Lys Phe Ala Gly

171 65 70

174 <210> SEQ ID NO: 7

175 <211> LENGTH: 216

176 <212> TYPE: DNA

177 <213> ORGANISM: Peptostreptococcus sp.

179 <220> FEATURE:

180 <221> NAME/KEY: CDS

181 <222> LOCATION: (1)...(216)

183 <400> SEQUENCE: 7

184 aaa gaa aaa aca cca gaa gaa cca aaa gaa gaa gtt act att aaa gca 48

185 Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala

186 1 5 10 15

188 aac tta atc tat gca gat gga aaa aca caa aca gca gaa ttc aaa gga 96

189 Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly

190 20 25 30

192 aca ttt gaa gaa gca aca gca gaa gca tac aga tat gct gac tta tta 144

RAW SEQUENCE LISTING

DATE: 03/27/2002

PATENT APPLICATION: US/09/808,212A

TIME: 14:54:05

Input Set : A:\414us.app.txt

Output Set: N:\CRF3\03272002\I808212A.raw

```

193 Thr Phe Glu Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Leu Leu
194          35          40          45
196 gca aaa gaa aat ggt aaa tat aca gta gac gtt gca gat aaa ggt tat    192
197 Ala Lys Glu Asn Gly Lys Tyr Thr Val Asp Val Ala Asp Lys Gly Tyr
198          50          55          60
200 act tta aat att aaa ttt gct gga    216
201 Thr Leu Asn Ile Lys Phe Ala Gly
202 65          70
205 <210> SEQ ID NO: 8
206 <211> LENGTH: 72
207 <212> TYPE: PRT
208 <213> ORGANISM: Peptostreptococcus sp.
210 <400> SEQUENCE: 8
211 Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala
212 1          5          10          15
213 Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly
214          20          25          30
215 Thr Phe Glu Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Leu Leu
216          35          40          45
217 Ala Lys Glu Asn Gly Lys Tyr Thr Val Asp Val Ala Asp Lys Gly Tyr
218          50          55          60
219 Thr Leu Asn Ile Lys Phe Ala Gly
220 65          70
223 <210> SEQ ID NO: 9
224 <211> LENGTH: 216
225 <212> TYPE: DNA
226 <213> ORGANISM: Peptostreptococcus sp.
228 <220> FEATURE:
229 <221> NAME/KEY: CDS
230 <222> LOCATION: (1)...(216)
232 <400> SEQUENCE: 9
233 aaa gaa aaa aca cca gaa gaa cca aaa gaa gaa gtt act att aaa gca    48
234 Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala
235 1          5          10          15
237 aac tta atc tat gca gat gga aaa act caa aca gca gag ttc aaa gga    96
238 Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly
239          20          25          30
241 aca ttt gca gaa gca aca gca gaa gca tac aga tac gct gac tta tta    144
242 Thr Phe Ala Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Leu Leu
243          35          40          45
245 gca aaa gaa aat ggt aaa tat aca gca gac tta gaa gat ggt gga tac    192
246 Ala Lys Glu Asn Gly Lys Tyr Thr Ala Asp Leu Glu Asp Gly Gly Tyr
247          50          55          60
249 act att aat att aga ttt gca ggt    216
250 Thr Ile Asn Ile Arg Phe Ala Gly
251 65          70
254 <210> SEQ ID NO: 10
255 <211> LENGTH: 72
256 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

DATE: 03/27/2002

PATENT APPLICATION: US/09/808,212A

TIME: 14:54:05

Input Set : A:\414us.app.txt

Output Set: N:\CRF3\03272002\I808212A.raw

```

257 <213> ORGANISM: Peptostreptococcus sp.
259 <400> SEQUENCE: 10
260 Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala
261 1 5 10 15
262 Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly
263 20 25 30
264 Thr Phe Ala Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Leu Leu
265 35 40 45
266 Ala Lys Glu Asn Gly Lys Tyr Thr Ala Asp Leu Glu Asp Gly Gly Tyr
267 50 55 60
268 Thr Ile Asn Ile Arg Phe Ala Gly
269 65 70
272 <210> SEQ ID NO: 11
273 <211> LENGTH: 213
274 <212> TYPE: DNA
275 <213> ORGANISM: Peptostreptococcus sp.
277 <220> FEATURE:
278 <221> NAME/KEY: CDS
279 <222> LOCATION: (1)...(213)
281 <400> SEQUENCE: 11
282 aaa gaa aca cca gaa cca gaa gaa gaa gtt aca atc aaa gct aac tta 48
283 Lys Glu Thr Pro Glu Pro Glu Glu Glu Val Thr Ile Lys Ala Asn Leu
284 1 5 10 15
286 atc ttt gca gat gga agc aca caa aat gca gaa ttc aaa gga aca ttc 96
287 Ile Phe Ala Asp Gly Ser Thr Gln Asn Ala Glu Phe Lys Gly Thr Phe
288 20 25 30
290 gca aaa gca gta tca gat gct tac gct tac gca gat gct tta aag aaa 144
291 Ala Lys Ala Val Ser Asp Ala Tyr Ala Tyr Ala Asp Ala Leu Lys Lys
292 35 40 45
294 gac aac gga gaa tat act gta gac gtt gca gat aaa ggc tta act tta 192
295 Asp Asn Gly Glu Tyr Thr Val Asp Val Ala Asp Lys Gly Leu Thr Leu
296 50 55 60
298 aat att aaa ttc gct ggt aaa 213
299 Asn Ile Lys Phe Ala Gly Lys
300 65 70
303 <210> SEQ ID NO: 12
304 <211> LENGTH: 71
305 <212> TYPE: PRT
306 <213> ORGANISM: Peptostreptococcus sp.
308 <400> SEQUENCE: 12
309 Lys Glu Thr Pro Glu Pro Glu Glu Glu Val Thr Ile Lys Ala Asn Leu
310 1 5 10 15
311 Ile Phe Ala Asp Gly Ser Thr Gln Asn Ala Glu Phe Lys Gly Thr Phe
312 20 25 30
313 Ala Lys Ala Val Ser Asp Ala Tyr Ala Tyr Ala Asp Ala Leu Lys Lys
314 35 40 45
315 Asp Asn Gly Glu Tyr Thr Val Asp Val Ala Asp Lys Gly Leu Thr Leu
316 50 55 60
317 Asn Ile Lys Phe Ala Gly Lys

```

VERIFICATION SUMMARY

DATE: 03/27/2002

PATENT APPLICATION: US/09/808,212A

TIME: 14:54:06

Input Set : A:\414us.app.txt

Output Set: N:\CRF3\03272002\I808212A.raw